

MODI Cross Border



An electric, autonomous truck, completely without a human driver, crossed a national border for the first time in history. This occurred at the Ørje customs station on September 25. Photo: Einride

Here the truck drives across the border – without a driver

When crossing a border, the truck driver must comply with various national regulations, digital customs clearance and legal responsibility. But who is going to do that when there is no driver in the car?

By [Ida Rambæk](#) - Published 07.10.2025

SINTEF was responsible when this truck made its way from Norway to Sweden, without a single person behind the wheel. The trial was an important milestone for automated freight transport on public roads.

Today, the driver is responsible for the goods that are transported across the border. The driver is also the one who must be physically present and talk to customs if something is not right, or if the car is pulled out for a check. But how can it be solved with a vehicle without people?

Tested both red and green customs declarations

The goal of the border crossing at Ørje customs station was to test how [autonomous vehicles](#) handle these challenges.

The truck drove across the border twice. First with a green customs declaration, then the car drives straight through customs. Then the car had to go through a red customs declaration, and thus it had to stop for further inspection.

Digital preparatory work

Postnord (Nordic shipping company) had pre-declared the goods. When the vehicle crossed the border, the number plate was automatically registered. Then a resale was made to Norwegian

customs' Digitoll system, which sent a digital message to the vehicle that it could either continue driving across the border or had to stop for inspection.

"Both worked smoothly," says Petter Arnesen at SINTEF.



Satisfied project group after successful demo. Photo: Per Johan Lillestøl

Major European collaboration

The demo is part of the EU project MODI (Horizon Europe), where eight countries in Europe are investigating what it takes to get autonomous goods transport on the roads.

The job of getting autonomous cars on the road is extensive, and there are both technological and regulatory challenges.

"The technology must be safe and reliable, even when the vehicle is mixed with normal traffic. And there must be a good flow of information between vehicles, authorities and infrastructure.

These are the words of Arnesen of SINTEF, who led the demo at Ørje Customs Station.

"There is still work to be done on both the technical and regulatory side, and it is crucial to work in parallel with technology and regulations," says Arnesen and adds:

"SINTEF facilitates collaboration between the business sector, public agencies and research. It is absolutely necessary to develop such automated solutions.

About the MODI Project

The border crossing was a collaboration between Swedish and Norwegian partners, including ITS Norway, the Norwegian Public Roads Administration, SINTEF, Q-Free, Einride, the Swedish Transport Administration, the Norwegian Customs, PostNord, the Norwegian Mapping Authority and Østfold County Council.